AMENDMENTS TO THE SPECIFICATION:

Page 1, between the Title and the first paragraph, insert the following new paragraph:

-- CROSS-REFERENCE TO RELATED APPLICATION

This application is a National Stage entry of International Application Number PCT/JP2005/002965, filed February 17, 2005. The disclosure of the prior application is hereby incorporated herein in its entirety by reference. --

Page 34, please amend first full paragraph starting at line 13 as follows:

A cylinder bore is formed in each cylinder 1 in which a piston 5 connected to the crankshaft by a connecting rod 6 fits in such a manner as to reciprocate freely therein. In the cylinder head 3, a combustion chamber 7 is formed in a surface which faces the cylinder bores in the cylinder axis direction A1 in such a manner as to correspond to each cylinder 1, respectively, and an inlet port 8 having a pair inlet openings and an exhaust port 9 having a pair of exhaust openings are also formed in the cylinder head 3 in such a manner as to open to each combustion chamber 7. A spark plug 10 is installed in the cylinder head 3 in such a manner as to be inserted into an insertion hole formed in the ~~cylinder 3~~ cylinder head 3 on an exhaust side thereof together with an ignition coil 11 connected to the spark plug 10.

Page 38, please amend paragraph starting on line 25 and bridging pages 39-40 as follows:

The exhaust operation mechanism includes a transmission mechanism Me which transmits a valve drive force of the exhaust cam 22 to each exhaust valve 15

so as to actuate the exhaust vale 15 to be opened and closed. The transmission mechanism Me includes a ~~rocker shaft 24~~ rocker arm shaft 24 as a single support shaft which is disposed directly above the camshaft 20 so as to be in parallel with the camshaft 20 and to intersect at right angles with the reference plane H1 and which is fixedly supported on each bearing cap 23b and exhaust rocker arms 25 which are tertiary rocker arms as a pair of tertiary oscillating members. Each rocker arm 25, which is supported in an oscillatory fashion at a fulcrum portion 25c on the ~~rocker shaft 24~~ rocker arm shaft 24 functioning as a pivot support portion, abuts with the exhaust cam 22 via a roller 26 possessed by a cam abutment portion 25a which is made up of an end portion of the exhaust rocker arm 25 and abuts with a valve stem 15a as a valve shaft of the exhaust valve 15 via an adjustment screw 27 possessed by a valve abutment portion 25b which is made up of the other end portion the exhaust rocker arm 25. Here, in the exhaust rocker arm 25, the valve abutment portion 25b is a location positioned closer to the exhaust valve 15 and is also a location positioned on an extension of a valve spring 13 in a direction in which the valve spring 13 extends and contracts (a direction in parallel with an axis L8, which will be described later on). Then, in the exhaust rocker arm 25, the fulcrum portion 25c is provided at an intermediate portion, which is a location between the cam abutment portion 25a and the cam abutment portion 25b. The adjustment screw 27 and an adjustment screw 65, which will be described later on, are such as to adjust the valve clearance to an appropriate value.

Page 43, please amend the paragraphs starting on line 22 and bridging page 45 as follows:

The base portion 41 is disposed above the camshaft 20, the inlet cam 21 and the ~~rocker shaft 24~~ rocker arm shaft 24 in such a manner as to extend substantially in the orthogonal direction A2 from the inlet side to the exhaust side, the fulcrum portion 31 is disposed substantially at the same position as a valve abutment portion, which will be described later on, in the orthogonal direction A2, and the holder oscillating center line L3 is disposed on an extension (in Fig. 2, the extension is shown by chain double-dashed lines) of a valve stem 14a as a valve shaft of the inlet valve 14 which extends along an axis L7 of the valve stem 14a. By adopting this construction, a distance between the holder oscillating center line L3 and a line of action of a reaction force F2 (refer to Fig. 6) from the inlet valve 14 is maintained small within the range of the valve stem 14a as a maximum limit. On the other hand, the projecting portion 42, which is disposed to extend substantially in the cylinder axis direction A1, is always situated on the exhaust side within the oscillating range of the holder 30.

The fulcrum portion 31 and the secondary support portion 34 are provided on each side wall 43, the gear portion 32 is provided on the connecting wall 44 in such a manner as to extend from the base portion 41 to the projecting portion 42, and the primary support portion 33 is provided on each projecting wall 45. As shown in Fig. 4, the fulcrum portion 31 is pivot supported on a support portion 23c formed on the bearing cap 23b. The support portion 23c defines a hole 71 having a circular section in cooperation with a holding cap 70 connected to an upper end portion of the bearing cap 23b with a bolt, so that a support shaft 31a formed on the fulcrum portion 31 is inserted

into the hole 71 in such a manner as to slide therein. Then, a support shaft 31a of a holder 30 belonging to the adjacent cylinder 1 is supported on the common ~~gearing cap 23b~~ bearing cap 23b.

Referring to Fig. 2, in a lower side portion of each side wall 43 which constitutes a lower side portion of the base portion 41, a portion on the camshaft 20 side where the projecting wall 45 projects downwardly from the side wall 43 forms an accommodating portion 39 which defines an accommodating space 39a for accommodating therein the holder 30 and the ~~rocker shaft 24~~ rocker arm shaft 24 which is a member disposed on the periphery of the primary rocker arm 50 in cooperation with a portion of the projecting wall 45 which is closer to the side wall 43. The accommodating space 39a opens downwardly toward the ~~rocker shaft 24~~ rocker arm shaft 24. Then, a ratio at which the ~~rocker shaft 24~~ rocker arm shaft 24 is accommodated in the accommodating space 39 becomes maximum when the ~~rocker shaft 24~~ rocker arm shaft 24 occupies a primary limit position as a predetermined position which is an oscillation position resulting when the holder 30 oscillates most downwardly (a state shown in Fig. 2 or Fig. 6).

Page 47, please amend the paragraphs starting on line 17 and bridging page 51 as follows:

The primary support portion, which regulates the primary oscillating center line L4, is provided on a lower end portion of the projecting portion 42 which constitutes a location closer to the inlet cam 21 and has a cylindrical support shaft 35 which is press fitted into a hole formed in each side wall 43. The primary rocker arm 50, which is supported by the support shaft 35 at a fulcrum portion 51 in an oscillatory fashion via a multiplicity of needles 36, abuts with the inlet cam 21 at a roller 53 possessed by a cam

abutment portion 52 made up of one end portion of the primary rocker arm 50 and abuts with the secondary rocker arm 60 at a drive abutment portion 54 made up of the other end portion thereof. In the primary rocker arm 50, the fulcrum portion 51 is provided at an intermediate portion which is a location between the cam abutment portion 52 and the drive abutment portion 54. Then, the primary rocker arm 50 is biased by virtue of a biasing force of a biasing device (not shown) such as a spring held by the holder 30 such that the roller 53 is pressed against the ~~inlet cam 24~~ inlet cam 21 at all times. In addition, an accommodation space 57 for accommodating therein the roller 53 is provided in the primary rocker arm 50 in such a manner as to extend from the fulcrum portion 51 to the cam abutment portion 52, and the accommodation space 57 constitutes an escape space which allows the passage of a cam lobe portion 21b of the rotating inlet cam 21. Then, the primary rocker arm 50 and the inlet cam 24 can be disposed close to each other, while the interference of the primary rocker arm 50 with the inlet cam 24 is avoided by the accommodation space 57.

The secondary support portion 34, which regulates the primary ~~oscillating center line L5~~ secondary oscillating center line L5, is provided on the base portion 41 so as to be situated between the primary support portion 33 and the holder oscillating center line L3 in the orthogonal direction A2 and has a support shaft 37 which is press fitted into a hole formed in each side wall 43. The secondary rocker arm 60, which is supported by the support shaft 37 at a fulcrum portion 61 in an oscillatory fashion via a multiplicity of needles 38, abuts with the drive abutment portion 54 of the primary rocker arm 50 at a roller 63 possessed by a follower abutment portion 62 made up of one end portion of the secondary rocker arm 60 and abuts with the valve stems 14a as the abutment

portions of the pair of inlet valves 14, respectively, at adjustment screws 65 possessed by a pair of valve abutment portions 64 made up of the other end portion thereof. Here, in the secondary rocker arm 60, the valve abutment portion 64 is a location which is situated closer to the inlet valve 14 and is also a location which is situated on an extension of the valve spring 13in a direction (a direction parallel to the axis L7) in which the valve spring 13 extends and contracts. Then, in the secondary rocker arm 60, the fulcrum portion 61 is provided on an intermediate portion which is a location between the follower abutment portion 62 and the valve abutment portion 64. In addition, since the sectional shape of the roller 63 is of a circular shape, the sectional shape of an abutment surface of the follower abutment portion 62, which is brought into abutment with a cum profile 55, which will be described later, is of an arc-like shape, as well.

On the drive abutment portion 54 acting as one of the drive abutment portion 54 and the follower abutment portion 62 which are brought into abutment with each other, the cam profile 55 is formed, which cam profile 55 has a lost motion profile 55a which maintains the inlet valve 14 in a closed state and a drive profile 55b which puts the inlet valve 14 in an opened state through the abutment with the roller 63 of the follower abutment portion 62 which acts as the other abutment portion. Then, an arm abutment position P2, which is an abutment position where the cam profile 55 and the roller 63 abut with each other, resides above the camshaft 20 and the ~~rocker shaft 24~~ rocker arm shaft 24 and is situated at a position which is superposed above the camshaft 20 and the rocker shaft when viewed from the cylinder axis direction A1 (hereinafter, referred to as *when viewed from the top*).

The lost motion profile 55a is formed so as to have an arc-like sectional shape which is formed about the primary oscillating center line L4 and is designed such that the valve drive force F1 of the ~~inlet valve 21~~ inlet cam 21 which is transmitted via the primary rocker arm 50 is not transmitted to the ~~secondary arm 60~~ secondary rocker arm 60 in a state in which a clearance is formed between the lost motion profile 55a and the roller 63, as well as in a state in which the roller 63 is in abutment with the lost motion profile 55a. As this occurs, the primary rocker arm 50 is in a rest state where the secondary rocker arm 60 is not oscillated by the inlet cam 21 via the primary rocker arm 50. Then, when the primary rocker arm 50 and the secondary rocker arm 60 are brought into abutment with each other in a state where the roller 53 of the primary rocker arm 50 is in abutment with a base circle portion 21a of the inlet cam 21, the roller 63 abuts with the lost motion profile 55a at all times. Consequently, when the arm abutment position P2 is located at an arbitrary position on the lost motion profile 55a, the inlet valve 14 is maintained in the closed state by virtue of the spring force of the valve spring 13, and a valve clearance is formed between a valve abutment surface 65a of the adjustment screw 65 which acts as a valve abutment surface of the valve abutment portion 64 and a distal end surface 14b of the valve stem 14a which acts as an abutment surface of the inlet valve 14.

Page 52, please amend the paragraph starting at line 10 and bridging page 53 as follows:

In addition, the drive abutment portion 54 has a pent roof-like thin portion 54a which projects diagonally downwardly toward the inlet cam 24 or the inlet valve 14, and the lost motion profile 55a is formed on the thin portion 54a. Then, an accommodation

portion 56 in which the ~~rocker shaft 24~~ rocker arm shaft 24 is accommodated in accordance with the oscillating position thereof is formed by making use of the thin portion 54a in the primary rocker arm 50 between the primary oscillating center line L4 and the lost motion profile 55a in a radial direction which radiates from the primary oscillating center line L4 as a center. Then, as the holder 30 approaches the primary limit position and the primary rocker arm 50 oscillates in a direction in which the lift amount of the inlet valve 14 is increased, the ratio at which the ~~rocker shaft 24~~ rocker arm shaft 24 is accommodated in the accommodation portion 56 is increased.

Page 61, please amend the paragraph starting at line 3 and bridging page 62 as follows:

Referring to Fig. 6, when situated at the primary limit position, the holder 30 occupies an oscillating position which is closest to the rotational center line L2 or the inlet cam 21 within the oscillating range, and the primary support portion 33 is situated so as to be superposed above the cam lobe portion 21b of the inlet cam 21 in the cylinder axis direction A1. The roller 63 of the secondary rocker arm 60 is in a state where the roller 63 abuts with the lost motion profile 55a of the cam profile 55 in a state where the roller 53 of the primary rocker arm 50 abuts with the base circle portion 21a of the inlet cam 21. As this occurs, the ~~rocker shaft 24~~ rocker arm shaft 24 is accommodated in the accommodation space 56a at a relatively small ratio. When the primary rocker arm 50 is brought into abutment with the cam lobe portion 21b to thereby be caused to oscillate in a counter-rotational direction R2 (a direction opposite to the rotational direction R1 of the inlet cam 21) by virtue of the valve drive force F1, the drive profile 55b abuts with the roller 63, so that the secondary rocker arm 60 is caused to

oscillate in the counter-rotational direction R2, whereby the secondary rocker arm 60 opens the inlet valve 14 against the spring force of the valve spring 13. Then, the ~~rocker shaft 24~~ rocker arm shaft 24 is accommodated in the accommodation space 56a at a maximum ratio.

Page 74, please amend the paragraphs starting on line 2, and bridging page 75 as follows:

The accommodation space 39a for accommodating the ~~rocker shaft 24~~ rocker arm shaft 24which supports the exhaust rocker arm 25 is formed in the holder 30, whereby the holder 30 and the ~~rocker shaft 24~~ rocker arm shaft 24 can be disposed close to each other, while the interference of the holder 30 with the ~~rocker shaft 24~~ rocker arm shaft 24 is avoided, and therefore, the valve train V is made compact in size, and moreover, the oscillating range of the holder 30 can be increased within the limited space, and therefore, the control range of the valve operating properties can be increased.

In the primary rocker arm 50, the accommodation space 56a for accommodating the ~~rocker shaft 24~~ rocker arm shaft 24 which supports the exhaust rocker arm 25 in an oscillatory fashion is formed between the primary oscillating center line L4 and the lost motion profile 55a in the radial direction which radiates from the primary oscillating center line L4 as a center, whereby almost no valve drive force F1 or reaction force F2 from the inlet valve 14 is transmitted to the lost motion profile 55a, and therefore, the rigidity required for the portion of the drive abutment portion 54 where the lost motion profile 55a is formed only has to be small, and the portion can be made thin, and therefore, the primary rocker arm 50 is made light in weight. In addition, the

accommodation space 56a is formed by making used of the thin portion 54a. Then, since, by allowing the ~~rocker shaft 24~~ rocker arm shaft 24 to be accommodated in the accommodation space 56a, the primary rocker arm 50 and the ~~rocker shaft 24~~ rocker arm shaft 24 can be disposed close to each other, while the interference of the primary rocker arm 50 with the ~~rocker shaft 24~~ rocker arm shaft 24 is avoided, the valve train V is made compact in size. Furthermore, by allowing the rocker shaft to also be accommodated in the accommodation space 39a, the primary rocker arm 50 and the ~~rocker shaft 24~~ rocker arm shaft 24 can be disposed close to each other, while the interference of the primary rocker arm 50 with the ~~rocker shaft 24~~ rocker arm shaft 24 is avoided, and therefore, the valve train V is made compact in size. In addition, since the oscillating range of the holder 30 which supports the primary rocker arm 50 within the space in the limited valve chamber 16 can be increased, the control range of the valve operating properties can be set large.